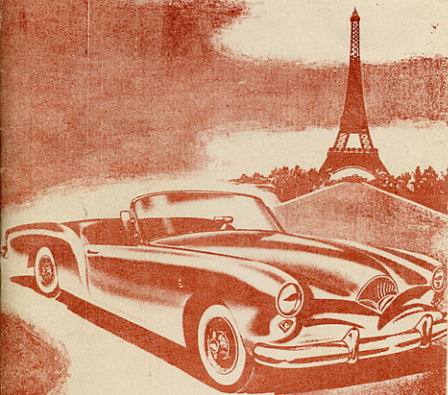


KAISER

Darrin 161



OWNER'S MANUAL 1954



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PRICE \$1.50



**your
new**



kaiser-darrin

161

From

**KAISER - WILLYS SALES DIVISION
WILLYS MOTORS, INC. • TOLEDO, OHIO, U. S. A.**



We are very happy to welcome you into the Kaiser-Willys family. Your Kaiser-Darrin 161 achieves a fresh imaginative approach to this new kind of automobile. The distinctive styling, the exceptional performance, and the excellent weight distribution all combine to afford you a safe yet thrilling new kind of motor driving. The combination of Kaiser-Willys engineering and the dramatic styling of Howard Darrin gives you an American Sports Car unequaled on any continent in beauty and driving performance.



We are confident you will be proud of your Kaiser-Darrin as long as you have it, and that you will want to maintain its beauty and performance. You will derive the greatest pleasure and satisfaction from your car, if it is kept in top condition. The service men who are best equipped to care for your Kaiser-Darrin are in your dealer's service department. These men offer you the advantages of factory training and information from Kaiser-Willys service engineers who strive constantly to enable your dealer to serve you better. Take your Kaiser-Darrin in regularly for servicing and check-up at the sign of Kaiser-Willys Approved Service.

EDGAR F. KAISER
President
Willys Motors, Inc.

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a word to the wise

Read this Owner's Manual carefully. It tells you the things you should know concerning your new sports car. Many interesting facts about your Kaiser-Darrin are included in this manual—answers to the many questions you will be asked by your friends, neighbors, and even strangers who stop to admire your car.

service policy

Your Service Policy, Owner's Identification Card, and the 1000 and 2000 mile inspection coupons are contained in your Owner's Courtesy Package. Read your Service Policy carefully and be sure the Policy and Identification Card are properly filled out by your Kaiser-Darrin dealer for the 1000 and 2000 mile inspections that insure getting your car off to a long trouble-free life.

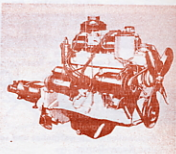


proper break-in

The first few miles you put on your new sports car are most important to its future performance. Observance of a few simple rules listed on the opposite page will protect your car's future.

maintenance and tune-up guide

Since it is realized that a few of the sports car owners who have adequate automotive experience, will want to make their own minor repairs and adjustments, a Maintenance and Tune-up guide is included in this Owner's Manual. This section contains brief procedures and specifications for engine tune-up, minor repairs, and adjustments. The Maintenance and Tune-up guide is not intended for use by novice mechanics or for major repairs. In such cases, your Kaiser-Darrin dealer can best provide you with proper service.





break-in rules

When your dealer presents the keys for your new Kaiser-Darrin, he is delivering a car which will bring a new motoring thrill. As with every fine product, your sports car should receive good treatment and proper care, especially when it is new. During break-in, be alert for unusual operating conditions that may develop. Watch the instruments for signs of low oil pressure or high temperature, and check the engine oil level frequently.

The speed at which you drive during the break-in miles has a definite effect on the future performance of your Kaiser-Darrin. Car speed during this period should not exceed limits in the chart below.

40 MPH FROM 1 TO 400 MILES
50 MPH FROM 400 TO 600 MILES
60 MPH FROM 600 TO 1000 MILES

Do not drive at constant speeds above 60 MPH between 1000 and 2500 miles.

Your sports car is delivered to you with SAE 10W oil in the engine. After the first



500 miles, this oil should be drained from the crankcase while the engine is warm. Refill engine with SAE 10W oil of good quality. Drain oil again at both 1000 and 2000 miles, refilling with quality oil of proper seasonal grade. The use of special break-in additives in the engine oil or gasoline is not required.

1000 and 2000 mile inspections

If minor adjustments become necessary during the break-in period, they should be taken care of at the 1000 and 2000 mile inspections. Arrange these inspections, provided for by the coupons attached to your Service Policy, at the proper mileage. Corrections made promptly by your dealer will avoid damage that might result from prolonged operation.

The 1000 mile and 2000 mile inspections listed on the coupons are to be performed without charge by any Authorized Kaiser-Darrin Dealer in the United States in accordance with the terms expressed thereon. If a new owner changes his residence or is on a trip when the inspections are due, the above services will be performed by any Authorized Kaiser-Darrin Dealer in his immediate vicinity.



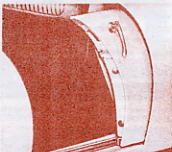


your unique Kaiser-Darrin

You will find the Kaiser-Darrin arouses excitement and admiration wherever you drive. The many excellent engineering and design features evoke interest everywhere, therefore we would like to point out just a few of the most interesting facts about your car.

basic beauty

We believe the Kaiser-Darrin is the smartest, most beautifully styled automobile yet built. Perhaps it has gone unnoticed that the exquisite beauty has been achieved without the use of ornamental mouldings. The smooth, exciting lines of the body could not be enhanced by ornamentation. This fact is a tribute to the inherent excellence of design.



concealed top

The folding vinyl top on the Kaiser-Darrin is completely concealed in the top compartment when not in use. This allows the smooth, rakish lines of the car to remain unbroken and affords protection for the top itself. Another interesting feature is that this top can not only be raised and lowered, but it can be placed in the smart "landau" position as well.



sliding doors

An exclusive innovation in Kaiser-Darrin body design is the sliding door. The doors open by sliding forward into compartments in the front fenders. This feature makes entering and leaving the car easy, especially in crowded parking lots, or along high curbs.





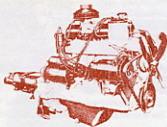
brakes

For your safety, Kaiser-Darrin engineers have installed 11-inch brake drums on all four wheels of this high performance car. These brakes provide 176 square inches of effective brake area—greater area than many passenger cars weighing 50% more. Each square inch of braking surface is required to stop only a little over 12 pounds of car weight.



f-head engine

The engine of your Kaiser-Darrin is one of the most efficient power plants in production today. The "F"-head design squeezes great power from the 161 cubic inch displacement, enabling this engine to turn out 90 horsepower at 4200 RPM. A further indication of its efficiency is that despite a very high compression ratio of 7.6 to 1, premium fuels are not required. The "F"-head is the same type engine as found in the finest and most costly European motor cars.



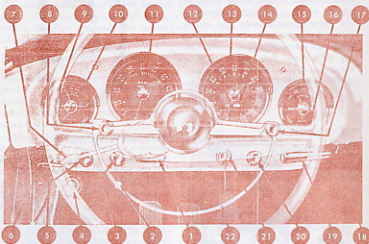
fiberglas body

The body of your Kaiser-Darrin is constructed of corrosion proof, light weight Fiberglass-reinforced plastic. The body shell weighs only 300 pounds, a fraction of the weight of a steel body of the same strength. Reinforced Fiberglas has exceptional impact resistance. A blow which would dent or tear steel bounces off your Kaiser-Darrin. If it should be struck with great force, the damage would be restricted to a small area, and could be easily and quickly repaired.



know your sports car

instruments and controls



The instruments and controls in your sports car are designed for simplicity and arranged for ease of operation and safety. The instruments and controls coded in the illustration above are identified as follows:

- | | |
|------------------------------|------------------------------|
| 1. Overdrive control | 12. High beam indicator |
| 2. Headlight dimmer switch | 13. Speedometer |
| 3. Headlight switch | 14. Odometer |
| 4. Windshield washer control | 15. Temperature gauge |
| 5. Heater blower control | 16. Ammeter |
| 6. Hood release handle | 17. Cigarette lighter |
| 7. Directional signal | 18. Map light switch |
| 8. Choke control | 19. Hand brake handle |
| 9. Fuel gauge | 20. Windshield wiper control |
| 10. Oil pressure gauge | 21. Starter-ignition switch |
| 11. Tachometer | 22. Horn ring |



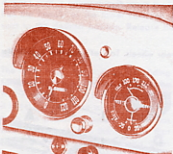
tachometer

The tachometer indicates the engine revolutions per minute. Observing the tachometer aids in obtaining maximum performance and preventing engine over-speeding, especially when shifting gears. For maximum acceleration, shifts should be made in the 4200 to 4400 RPM range. Engine speeds higher than this while in gears, are potentially harmful.

oil pressure-fuel gauge

Normal oil pressure is approximately 30 to 40 pounds at 30 miles per hour, using oils of recommended weight. Variations due to changes in speed are normal, but if rapid fluctuations occur, investigate the cause immediately.

The fuel gauge indicates the amount of fuel in the tank. This gauge operates when the starter-ignition switch is in the ignition or accessory position.



speedometer

The speedometer is provided with a total mileage recorder. The headlight high-beam indicator is located in the lower center of the speedometer face.

temperature gauge— ammeter

Normal operating temperature should be around the 170 mark. The indicator may lean toward the 212° mark in hot

weather, or when the engine is idling continuously. A sudden rise to the 212° mark should be investigated immediately.

The ammeter should indicate "charge" for a short period after starting. Varying rates of charge and discharge are normal, but with constant driving the pointer should return close to zero. Consult your Kaiser-Darrin dealer if excessive fluctuations or continued "charge" or "discharge" are noted.



starter-ignition switch "A"

A four position starter-ignition switch eliminates the need for a separate starter button and ignition switch. When the key is straight up and down, the instruments, accessories, and ignition are "off." The engine is started by rotating the ignition key $\frac{1}{4}$ turn clockwise until the engine starts, then release it. The switch will automatically return to the "on" position. To use the accessories only, without the engine running, turn the key counter-clockwise from the "off" position.

cigarette lighter "B"

For your convenience, a cigarette lighter of the push-in type is installed. When the proper temperature is reached, the handle will pop out part way.



windshield wiper control "C"

This control operates your electrically driven dual windshield wipers. The control has three positions—off, slow, and fast, and is turned clockwise.

hand brake "D"

The hand brake operates the brakes on the rear wheels. To "set" pull out the handle. To release, turn the handle downward.

overdrive handle "A"

To operate the car with overdrive the handle should be all the way in. For conventional operation the handle should be pulled out when car is standing. (See page 16 for complete instructions.)



choke control "B"

The carburetor choke control should be used when starting a cold engine. Pull the choke all the way out until the engine starts, then push it back about half way. As engine heat increases, reduce the choke setting a little more. When temperature is nearly normal, push choke all the way in. Choking is not required to start a hot engine or when weather is very warm.



headlight switch "C"

Pulling the headlight switch knob out to the first position turns on parking, instrument, and tail lights. The second position turns on headlights, instrument, and tail lights. The brightness of the instrument lights is regulated by rotating the knob. A dimmer switch on the floor to the left of the clutch pedal, is used to change headlight beam to either "high" or "low." When headlights are on "high beam," a red warning light appears on the speedometer face.

heater blower control "D"

This knob operates the blower in the heater. (Optional equipment). Pulling the knob out to the first stop starts the blower in low speed. The second stop is high speed. For more detailed heater instructions, see page 14.



seat adjustment

The safety posture bucket type seat cradles your weight low where it is safer. The driver's seat is adjustable forward and backward to provide the desired leg room. Pull the handle at the lower forward edge of the driver's seat outward, and slide seat to the desired position. Release the handle to lock the seat in position.

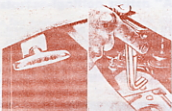
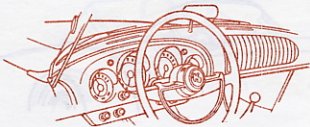
sliding doors

The new style doors open by sliding forward on tracks into openings in the front fenders. When the door is closed, it is held securely by a hook type door latch. An automatic locking device has been incorporated in the latch so that when the latch is shut it also locks securely. When opening the sliding door, always leave the handle in the down position. This will eliminate the possibility of the handle striking the front fender.



gear shift

The competition type gear shift lever is mounted on the raised center section of the floor slightly ahead of the seats. This placement affords effortless shifting, and the short lever action aids in fast, sure, gear changes. The conventional "H" type shifting pattern is used.



hood lock

The hood cannot be opened until the hood lock release handle is pulled out. A safety catch must then be released manually from under the front edge of the hood. A support rod is used to hold the hood open for convenient accessibility to the entire engine compartment. To close the hood properly do not slam it. Lower the hood carefully until the

safety catch engages, then press on crown of hood to engage the hood lock.

luggage compartment lid

Access to the luggage compartment is obtained by rotating the key clockwise to release the pop-open lid lock. Raise the lid by lifting at the lower edge. A support rod is used to hold the lid open. When closing, the lid will lock by itself. The key is not required for locking.

folding top

The folding top can be lowered into the top compartment, where it is completely hidden from view. To raise the top proceed as follows:

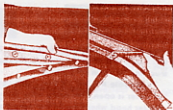
1. Unlock and open luggage compartment lid.
2. Pull the top compartment release handle located on the left side of the luggage compartment.
3. Close luggage compartment lid.
4. Open top compartment lid.
5. Raise folding top.
6. Close top compartment lid.
7. Fasten bottom bow of top to top compartment lid with knurled thumb screws.





8. Hook slotted end of landau arms to thumb screw on outside of bottom bow.
9. Snap landau arms over center and tighten thumb screws.
10. Snap fasteners at windshield or in "landau" position.

To lower the top, reverse the sequence of the steps outlined above.



side curtains

Removable clear vinyl side curtains can be installed during adverse weather. The curtains are attached by fitting the fabric beads at the front and rear edges into tube-like slots at the windshield pillar and top support. Snap fasteners close the upper edge, while the lower edge fits snugly over the door sill.



The curtain is opened or closed by a zipper running along the top and rear edges. This zipper can be operated from inside or outside the car. To enter or leave, loosen the zipper and open the door. The curtain then remains hinged to the windshield pillar.

vent controls

Ventilating air ducts provide additional fresh air for the car interior. Air enters at the front end of the car and is forced through the ducts by forward movement, entering the interior through openings in the dash panel. The left vent control regulates air for driver, the right vent control for the passenger.





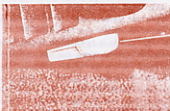
heater

Your Kaiser-Darrin is available with a high output recirculating type heater. This unit moves a large volume of air through the heating coils, and will keep the interior snug and warm in cold weather.

To operate the heater, first make certain that the valve which controls the flow of hot water is open. This valve is the thumbscrew type and is located at the rear of the cylinder head where the heater hose connection is made. The valve should be opened in cold weather and closed when the heater is no longer needed.



The blower is operated by the knob on the far left of the dash below the fuel gauge. Pull the knob out one notch for low blower speed and to the second notch for high blower. Since the output of this type heater is dependent upon engine temperature, it will become effective as soon as the engine warms up.



defrosters

Defroster operation is controlled by the plastic handle located on the left underside of the heater body. This handle, when moved to the left, channels warm air through the defroster ducts to the windshield for removal of condensation and frost. When the defroster handle is moved to the right, warm air is directed toward the driver's feet.

keys

Two sets of keys are furnished with your Kaiser-Darrin. The hex shaped key fits the ignition and the oval key is for the trunk lock. When you receive your keys from the dealer, two small metal tags are attached. These tags bear the serial numbers of the keys. The numbers should be recorded and placed in a safe, accessible place, so that if the keys are lost they can be replaced by referring to the key number. Any qualified locksmith can make duplicate keys from this number, or your dealer may be able to supply them.



how to operate your Kaiser-Darrin

starting the engine

Push clutch pedal down while starting engine. This frees the engine from the extra burden of turning gears in the transmission, thereby reducing the load on the starting motor and battery.

Place gearshift lever in neutral position. This will prevent movement of the car if clutch pedal is accidentally released after engine starts.

Pull choke control out all the way until engine starts, then push it in half way. As soon as the engine will run smoothly, push choke in to decrease engine speed. When engine warms up push choke all the way in to avoid wasting gasoline. Do not use choke when starting a hot engine as this may cause flooding.

Since choke is linked with accelerator pedal, do not depress accelerator while starting engine if choke is pulled out. After engine starts and choke is pushed in, use accelerator to control engine speed. Depress accelerator part way when starting a hot engine. Do not "pump" accelerator at any time. If engine is hot and becomes flooded, press accelerator slowly to the floor and hold it down while starter key is on until excessive gas is exhausted and engine fires.

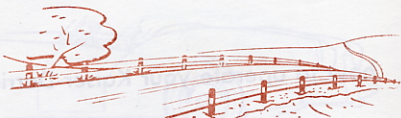
Insert ignition key and turn ignition switch $\frac{1}{4}$ turn clockwise to the "start" position. Hold ignition key in the start position until engine fires, then release it.



shifting gears



Push in clutch pedal and let up on accelerator while shifting gears. Shift pattern is as illustrated. Car should be fully stopped before shifting into low or reverse. Shift forward gears in sequence 1-2-3, and do not miss shifts. Allow time enough for gears to synchronize when shifting to avoid clashing. High speeds in first and second gears are not economical and may shorten transmission life.



use of overdrive

Overdrive provides greater economy by reducing engine speed. With the overdrive control pushed in, overdrive goes into operation automatically when accelerator is momentarily released at speeds over 29 MPH. Overdrive disengages automatically at approximately 23 MPH when decelerating.

For extra power on hills or passing in traffic, push the accelerator to the floor to cut out overdrive and operate in conventional third gear. Momentary release of accelerator again engages overdrive.

To operate in conventional gear, pull the overdrive control out when the car is standing, or when accelerating in regular third gear. To be certain that the transmission is in regular third gear, press the accelerator to the floor and pull the control out at the same time. For hazardous driving, when pushing or when being pushed to start, operate car in conventional drive.



DON'TS

DON'T RACE THE ENGINE. Warm-up is faster at slower speeds and you will avoid damage to working parts before oil can protect them.

DON'T RIDE THE CLUTCH PEDAL. It causes excessive wear and expense.

DON'T SHIFT GEARS WITHOUT DEPRESSING THE CLUTCH PEDAL.

DON'T SKIP GEARS, ALWAYS SHIFT ONE-TWO-THREE.

DON'T SHIFT TOO FAST from first to second gear, or from second to third. Allow an instant for the gears to synchronize.

DON'T EXCEED 40 MPH UNTIL ENGINE IS FULLY WARMED UP.

DON'T RELEASE CLUTCH UNTIL JUST BEFORE CAR STOPS. Allow the engine to act as a brake.

DANGER!! Don't run the engine in a closed garage. Carbon monoxide gas in the exhaust is deadly, and gives no warning.

care of your car

engine care

The engine in your Kaiser-Darrin 161 was carefully engineered for ruggedness, excellent performance, good fuel economy and low service and maintenance costs. With the small amount of care as outlined on these pages, the engine in your Kaiser-Darrin should continue to give you this same fine performance and economy for many years.



fuel recommendations

Your new Kaiser-Darrin engine is factory adjusted to operate satisfactorily on either "regular" or "premium" grades of quality gasoline. Always purchase gasoline from a reputable dealer who sells it in sufficient volume to have clean, fresh gasoline.

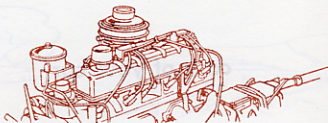
engine oil recommendations

Engine oil, like gasoline, should be a good quality oil marketed by a reputable company. The engine in your Kaiser-Darrin is designed to operate satisfactorily when lubricated with ML, MM or MS type engine oil (formerly known as regular, premium or heavy duty).

Selection of the proper viscosity or "weight" of engine oil is important to assure adequate lubrication in hot weather and easy starting in cold weather. Follow the recommendations in the Lubrication Chart on Page 25.

The oil level dipstick is marked "F" and "L". Maintain oil level between these two lines, adding 1 quart of engine oil when level nears "L" mark. Always wait two or three minutes after engine stops before checking oil level. This permits the oil to drain into the crankcase and reach its true level. Engine oil level should be checked every time the car is refueled.





changing engine oil



Change engine oil at the first 500 miles, again at both the 1000 and 2000 mile marks, and every 2000 miles thereafter, under normal operating conditions. Change oil more frequently depending on severity of operating conditions and if car is driven short distances in cold weather or allowed to idle excessively.

changing oil filter

The oil filter (accessory) removes metal particles, dirt, carbon, etc. from oil which is circulating through the engine. Change filter element every 10,000 miles at time oil is changed, or more often when the dipstick shows evidence of dirty oil.



servicing air cleaner

All air entering the carburetor passes through the air cleaner. Abrasive road dust is removed from the air and accumulates in the air cleaner. Therefore, the air cleaner must be removed and cleaned periodically. Every 2,000 miles should be satisfactory for normal operating conditions. More frequent cleaning is recommended when operating on dusty or sandy roads. The filter element should be removed, washed in kerosene, wetted with proper engine oil, then installed on the carburetor.



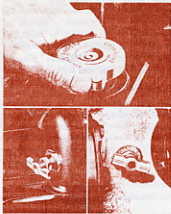
engine tune-up

For continued economical and efficient operation of your Kaiser-Darrin engine, you should have your dealer tune up the engine twice a year, preferably spring and fall. For owners who are experienced, the maintenance and tune-up guide in this manual gives the proper tune-up procedure.



cooling system

The Kaiser-Darrin "pressurized" cooling system has a capacity of 12 quarts with heater. To inspect coolant level, turn the filler cap counter-clockwise to the first stop. This is a safety stop for release of pressure through the overflow pipe. When the hissing sound of pressure is eliminated, turn cap to the second stop and remove. Keep coolant level approximately one inch below bottom of filler pipe to avoid expansion losses. NEVER POUR COLD FLUIDS INTO, NOR COMPLETELY DRAIN COOLANT FROM AN OVERHEATED ENGINE. A cracked or warped cylinder block may result. Drain the cooling system each spring and fall and flush thoroughly. Open drain cocks at lower left side of radiator at the hose outlet, and in right side of cylinder block near the distributor to completely drain the system.



anti-freeze and rust inhibitor

In winter use only an alcohol or ethylene glycol base anti-freeze mixed with clean water in proper proportion for protection below the coldest expected temperature. Your Kaiser-Darrin dealer stocks quality anti-freeze for your protection. Use anti-freeze containing a rust inhibitor. Always add a factory approved rust inhibitor when filling cooling system with water in the spring.

battery

Proper care will add to battery life and performance. Maintain water level in each cell $\frac{1}{4}$ " above plates. Keep terminals tight and free from corrosion. Apply grease on clean terminals to retard corrosion. Have battery checked regularly with a hydrometer and charged if necessary. A battery in need of charging may freeze in cold weather.

